MIDDLE FORD AMERICAN SYCAMORE
(Middle Ford *Platanus occidentalis*)
NPS Witness Tree Protection Program
Monocacy National Battlefield
Thomas Farm
East side of Monocacy River
Upper portion of hill
Field west of MD Route 355
Frederick vicinity
Frederick County
Maryland

HALS MD-10
MD-10

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN LANDSCAPES SURVEY
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

HISTORIC AMERICAN LANDSCAPES SURVEY

MIDDLE FORD AMERICAN SYCAMORE
(Middle Ford *Platanus occidentalis*)

HALS No. MD-10

Location:	Monocacy National Battlefield, Thomas Farm, east side of Monocacy River, upper portion of hill, field west of MD Route 355, Fredrick vicinity, Frederick County, Maryland
Owner/Manager:	U.S. Government, National Park Service
Present Use:	Ornamental and shade tree; prominent landscape element
Significance:	The Middle Ford American Sycamore (*Platanus occidentalis*) is significant because of its longevity and exceptional size. It is also significant due to its association with the original Georgetown Road and the Middle Ford ferry crossing and tavern during the eighteenth and early nineteenth centuries, as well as its proximity to the Civil War Battle of Monocacy.
Author & Discipline:	Jonathan Pliska, Landscape Architectural Historian, 2006
Project Information:	The Witness Tree Protection Program was a pilot project undertaken by the Historic American Landscapes Survey and the National Capital Region of the National Park Service. The principals involved were Richard O'Connor, Chief, Heritage Documentation Programs; Paul D. Dolinsky, Chief, Historic American Landscapes Survey; Darwina Neal, Chief, Cultural Resources, National Capital Region; Jonathan Pliska, Historian, Historic American Landscapes Survey; Jet Lowe and James Rosenthal, Photographers, Heritage Documentation Programs.

PART I. HISTORICAL INFORMATION[1]

The Middle Ford American Sycamore, one of the largest American sycamore trees growing in the state of Maryland, is located in an agricultural field at the Thomas (Araby)

[1] Adapted from National Park Service, "Middle Ford Ferry & Tavern," in *George Washington Memorial Parkway* (Washington, D.C.: U.S. Dept. of the Interior, National Park Service, 21 May 2007), http://www.nps.gov/mono/historyculture/mfferrytavern.htm (accessed 4 January 2008); also from Joy Beasley, Cultural Resources Program Manager, Monocacy National Battlefield, to Jonathan Pliska, electronic mail, 19 December 2007.

Farm, one of the six component properties that comprise Monocacy National Battlefield. It is adjacent to the trace of the original alignment of the Georgetown Road, which by at least 1748 was the primary route between the growing commercial centers of Fredericktown (Frederick), Maryland, to the north and Georgetown to the south. The American sycamore is also in close proximity to the Middle Ford ferry crossing, likewise in place by at least 1748. Here the Georgetown Road crossed the Monocacy River and travelers frequented a mid-eighteenth century tavern located nearby. The ferry and tavern have important historical associations, including the April 1755 arrival of British soldiers from Col. Thomas Dunbar's 48th Regiment of Foot. The regiment crossed the river in advance of Gen. Edward Braddock's failed assault on the French forces defending Fort Duquesne. Inclement weather, however, made the crossing at Middle Ford laborious and slow, and Dunbar's soldiers were likely entertained at the tavern during the delay.

The Georgetown Road was chartered as a turnpike in 1805 and in 1828 the ferry was replaced by a covered bridge. The latter change necessitated the realignment of the road to the east, which in turn led to the closing of the tavern. The Middle Ford American Sycamore, however, remained and has thrived through to the present day. The National Park Service estimates its age to be 300 years or older, meaning that it was present throughout the site's inception, growth, and decline. It may have also been used as a marker for the road, ferry, tavern, or all three.

The tree likely also witnessed the Civil War Battle of Monocacy, fought 9 July 1864. Confederate forces under the command of Lt. Gen. Jubal A. Early defeated a hastily organized Union defense led by Maj. Gen. Lew Wallace. The battle, however, proved costly for the Confederates, as the lost time enabled General-in-Chief Lt. Gen Ulysses S. Grant sufficient time to fortify the defenses of Washington, D.C., and dissuade Early from assaulting the National Capital. During the Battle of Monocacy, the Confederates attacked from the west side of the river, overpowering the much smaller Union contingent defending the high ground on the east side. Given its position near the Union forces, the Middle Ford American Sycamore was assuredly in close proximity to the fighting, and probably within view of the soldiers engaged in what has been termed "the battle that saved Washington."

PART II. BIOLOGICAL INFORMATION

Commonly known as the American sycamore, or simply sycamore, *Platanus occidentalis* is native to North America with a home range stretching from Maine to Ontario and Minnesota, and south to Florida, Texas, and northeastern Mexico.[2] However, its growing zone extends across the contiguous forty-eight states, except California. It is one of six

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[2] This species is also known as the American planetree, buttonwood, and buttonball-tree; O. O. Wells and R. C. Schmidtling, "Eastern Cottonwood," in *Silvics of North America: 1. Conifers. Agricultural Handbook 654*, online ed., tech. coords. Russell M. Burns and Barbara H. Honkala (Washington, D.C.: U.S. Dept. of Agriculture, U.S. Forest Service, 1990), 1004, http://www.na.fs.fed.us/spfo/pubs/silvics_manual/volume_2/silvics_v2.pdf (accessed 13 June 2006).

or seven large species of trees classified under the family Platanaceae.[3] The bark is the most distinguishing feature of the species. The outer layer is smooth in texture and a dark grayish-brown. It flakes off in large, irregular patches, revealing the grayish or cream-colored inner bark, which becomes whitish following its exposure. Together the different colors of bark create an impressive mottled appearance, especially in the winter after the deciduous leaves have fallen.[4] These leaves vary in length from 4" to 12", are rather star-shaped, and resemble maple leaves. They exhibit pinnate venation, where lateral veins diverge on either side of one large central vein, or midrib. The perimeter is coarsely toothed or serrated, and leaves are arranged singly on alternate sides of the branches. They are medium to dark green in the summer and turn an unremarkable shade of yellowish-brown in the autumn.[5] After reaching physiological maturity in six to seven years, the trees produce red, ½" to 1" diameter ball-shaped flowers. These appear by May in the north and as early as late March in the south. American sycamore is monoecious; male and female flowers appear on the same tree. They remain distinguishable since "the male flowers grow in clusters grow on branchlets of the previous year and the female flower clusters grown on older branchlets.[6] The fruit is similarly rounded, but brown in color and ripens by September or October. They often remain on the tree over winter, with the dry, hard shell breaking up the following spring to release many individual, hairy seeds.[7]

Platanus occidentalis grows quickly, at a maximum rate of 3' per year, and is one of the most impressive trees in the United States.[8] Individuals typically grow 75' to 100' tall, with a similar or greater crown spread.[9] The species also boasts the greatest diameter at breast height (d.b.h.) of any temperate hardwood tree, often reaching 10' to 13' (a circumference of approximately 190" to 245").[10] Although it has not been measured, National Park Service officials believe the Middle Ford American Sycamore to be one of the largest trees of its species growing in the state of Maryland. The tree appears all the more immense due to the expanse, open landscape that surrounds it. *Quercus alba* is also an extremely slow-growing and long-lived species, averaging 1' of new growth per year or less, and with a life expectancy of greater than 165 years.[11] *Platanus occidentalis* also

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[3] Liberty Hyde Bailey and Ethyl Hyde Bailey, "*Platanus*," in *Hortus Third: A Concise Dictionary of Plants Cultivated in the United States and Canada*, revised and expanded by the staff of the Liberty Hyde Baily Hortorium, Cornell University (New York: Macmillan Publishing Co., Inc., 1976), 883.
[4] Michael A. Dirr, Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses, 5th ed. (Champaign, Ill.: Stipes Publishing L.L.C., 1998), 754.
[5] Ibid; Edward F. Gilman and Dennis G. Watson, Platanus occidentalis: *Sycamore*, (Gainsville, Fla.: University of Florida, Institute of Food and Agricultural Sciences, November 1993), http://edis.ifas.ufl.edu/ST484 (accessed 12 June 2006).
[6] Wells and Schmidtling, 1008.
[7] Ibid; Gilman and Watson.
[8] Jeffery L. Reimer and Walter Mark, *SelecTree: A Tree Selection Guide* (San Luis Obispo, Calif.: Urban Forest Ecosystems Institute, 2004), California Polytechnic State University, http://selectree.calpoly.edu (accessed 21 June 2006).
[9] Dirr, 755.
[10] Reimer and Mark.
[11] Dirr 814; Reimer and Mark.

holds a typical minimum lifespan of 150 years.[12] Middle Ford American Sycamore is believed to be at least 300 years old, making it a venerable specimen even for this long-lived species.

In general, American sycamores are most compatible with plantings outside of heavily urbanized environments. Although capable of rooting in small cut-out planting pits, highway medians, parking lot islands, and other similarly enclosed spaces, these locations are not recommended due to the large size the species eventually attains. Protruding branches become a major nuisance near homes or business, and aggressive roots often raise and destroy nearby sidewalks. Likewise, lawn plantings are similarly discouraged due to messy habit, as the trees constantly drop leaves, fruits, and twigs. The dense shade created by the trees may interfere with grass growth, and falling leaves reportedly release a substance which may even kill newly planted grass. The species itself is highly sensitive to elevated ozone levels.[13] For the mutual benefit of the trees and the public, individuals should be planted in expansive, open areas where they will be allowed to grow. *Platanus occidentalis* is extremely hearty, highly drought tolerant, and adapts well to a wide variety of soil conditions – alkaline to acidic, sand to clay, and extended flooding to well drained. However, the species is sensitive to diseases and pests. One such disease, anthracnose, does not usually kill a tree, but causes defoliation, branch and twig cankers, and reduced vigor. Conversely, a bacterial leaf scorch can kill a tree in just a few years. As the disease progresses, leaves appear scorched, become crisp, and curl up as they turn reddish-brown. Sycamore lace bugs cause premature defoliation and aphids suck sap from the trees, but neither seriously affect survival.[14] The species is ideally suited to the wide, expansive landscape of the Monocacy National Battlefield and the Middle Ford American Sycamore is considered to be healthy and in good condition. It was pruned fall 2005 to remove dead branches and debris.[15]

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[12] Reimer and Mark.
[13] Gilman and Watson.
[14] Ibid.
[15] Joy Beasley to Jonathan Pliska.